REMARKS

I. Amendments

Claims 1-29 have been previously canceled. Claims 40-51 are currently under examination, of which claims 40-43 and 50 are allowed. Claims 44-49 and 51 were rejected. Applicants have amended claim 44, from which claims 46-49 depend, and have canceled claims 45 and 51 in this amendment. The amendments to the claims do not add or constitute new matter. Support for the amended claims may be found throughout the specification and originally filed claims. More particularly, the claims as amended, directed to a transgenic mouse whose genome comprises a disruption in a sulfotransferase gene, and cells and tissues isolated from the transgenic mouse, are supported, for example, at page 11, line 24, through page 13, line 24, at page 19, line 29, through page 21, line 24, at page 39, line 32, through page 40, line 8, and at page 59, line 24, through page 60, line 27, of the specification. As such, no new matter has been added.

The foregoing amendments are made solely to expedite prosecution of the instant application, and are not intended to limit the scope of the invention. Further, the amendments to the claims are made without prejudice to the pending or now canceled claims or to any subject matter pursued in a related application. Applicants reserve the right to prosecute any canceled subject matter at a later time or in a later filed divisional, continuation, or continuation-in-part application.

Upon entry of the amendment, claims 40-44 and 46-50 are pending in the instant application.

II. Rejection - *35 U.S.C. § 112, first paragraph*

The Examiner has rejected claims 44-49 and 51 under 35 U.S.C. § 112, first paragraph, because the specification allegedly fails to enable any person skilled in the art to which it pertains or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims. Applicants respectfully traverse this rejection.

More particularly, the Examiner alleges that the specification, while being enabling for a transgenic mouse whose genome comprises a homozygous disruption of the endogenous sulfotransferase gene, wherein said transgenic mouse lacks production of the functional sulfotransferase protein, and exhibits a behavioral abnormality, does not reasonably provide

enablement for a transgenic mouse whose genome comprises a heterozygous disruption of the endogenous sulfotransferase gene. Further, the Examiner states that the specification does not support the enablement of a cell or tissue isolated from the transgenic mouse.

The claims are currently drawn to a transgenic mouse whose genome comprises a disruption in an endogenous sulfotransferase gene, wherein the transgenic mouse lacks production of functional sulfotransferase protein and exhibits a behavioral abnormality and to a cell or tissue isolated from said mouse.

In one aspect of the rejection, the Examiner asserts that these claims encompass a heterozygous mouse. The Examiner states that the "rejection can be overcome by limiting the claims to a homozygous mouse." Applicants have adopted the Examiner's suggested modification, and amended the claims accordingly. The claims now recite a "homozygous" disruption in the sulfotransferase gene, and claim 45 has been canceled. Therefore, this aspect of the rejection is no longer relevant, which applies to claims 44-48.

In another aspect of the rejection, the Examiner asserts that the specification fails to teach how to use a cell or tissue isolated from the transgenic mouse because the phenotype of the transgenic mouse would not be displayed by a tissue or cell isolated from said mouse. Applicants disagree. One of skill in the art would know how to use cells or tissue isolated from a transgenic mouse exhibiting a phenotype desired to be modulated. As one example, the cells or tissue could be used for determining whether agents which putatively target the sulfotransferase gene also target other pathways by comparing the effect of the agent on the cells or tissue to its effect on wild-type cells or tissue in many standard assays well known in the art. As another example, the cells or tissue may be used to screen for agents capable of affecting alternative pathways that may compensate for any loss of function attributable to the disruption or underexpression of the sulfotransferase gene. These represent only a few ways to use the cells and tissue which would be well within the skill of the ordinary artisan. As a person of ordinary skill in the art would be capable of using the cells and/or tissue of the instant invention without undue experimentation, Applicants believe that this aspect of the scope of enablement rejection under 35 U.S.C. § 112, first paragraph, is improper. Applicants have canceled claim 51, drawn to cells or tissue isolated from the transgenic mouse comprising a heterozygous disruption in the sulfotransferase gene, making this aspect of the rejection regarding claim 51 no longer relevant.

As the scope of enablement rejections are either no longer relevant or have been demonstrated to be improper, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 112, first paragraph.

Applicants submit that claims 40-44 and 46-50, in their current form, are fully enabled by the teachings of the specification in accordance with 35 U.S.C. § 112, first paragraph.

It is believed that the claims are currently in condition for allowance, and notice to that effect is respectfully requested. The Commissioner is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-1271 under Order No. R-855.

Respectfully submitted,

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